III. SECONDARY IMPACTS

Section II of this EIR documented that the proposed project may result in significant *direct* environmental impacts. Approval of the proposed project could also result in significant *indirect* environmental impacts. The CEQA guidelines define secondary effects as those which are caused by the project and are later in time or are farther removed in distance, but are still reasonably foreseeable.

The approval of a planned development rezoning is a discretionary act, which means the City has the option to disapprove the proposed project and require the land owner to return approximately 150 acres of the land to the condition it was prior to the illegal grading having occurred. If the City approves the proposed project, they will forgo this option to have the project site restored to pre-grading conditions, which would therefore be an indirect result of approving the project. Restoring the land to pre-grading conditions would mitigate many (but not all) of the impacts that resulted during or from the construction of the existing golf course. If the proposed project is approved as it is proposed, the following impacts that occurred as a result of constructing the project will not be reversed, reduced, or mitigated. Figures 9 and 10 on the following pages compare existing to pre-existing conditions on the project site. Figure 9 shows the existing and pre-existing topography of the project site and Figure 10 shows both a recent and an historical aerial photograph of the project site.

1. Impacts

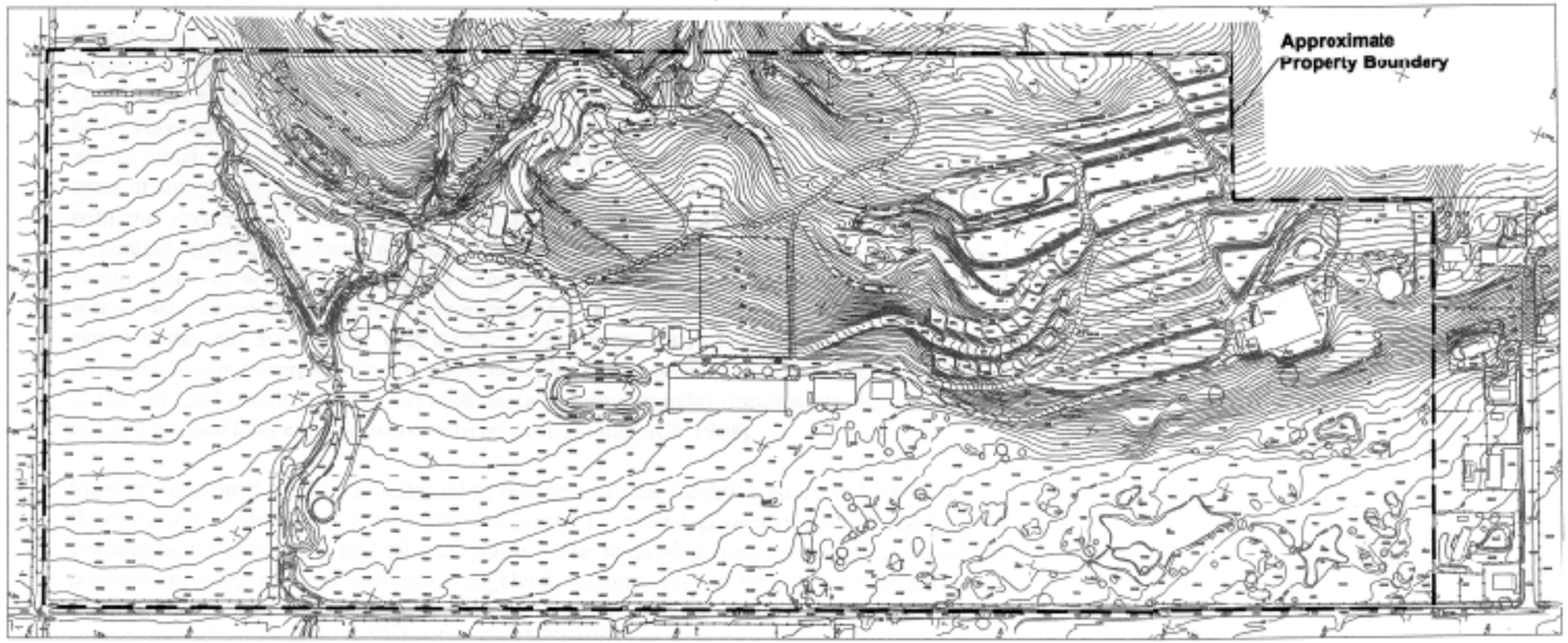
Special-Status Plant Species (Serpentine) Habitat

Approximately 80 acres of the property are underlain by Climara soils that have substantial proportions of serpentine inclusions, and can support many endemic, threatened or endangered special-status plant species. Since most of the area on the site containing this soil has been developed into a golf course, it is not possible to determine the quality of habitat or the extent of special-status plant populations that may have occurred on the site. Special-status plant species surveys recently performed on the project site failed to detect any existing special-status plants on the project site. The United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) have both stated that they believe serpentine soils were present on the site. The consulting biologist also believes that serpentine soils were present on the site before the un-permitted grading took place.

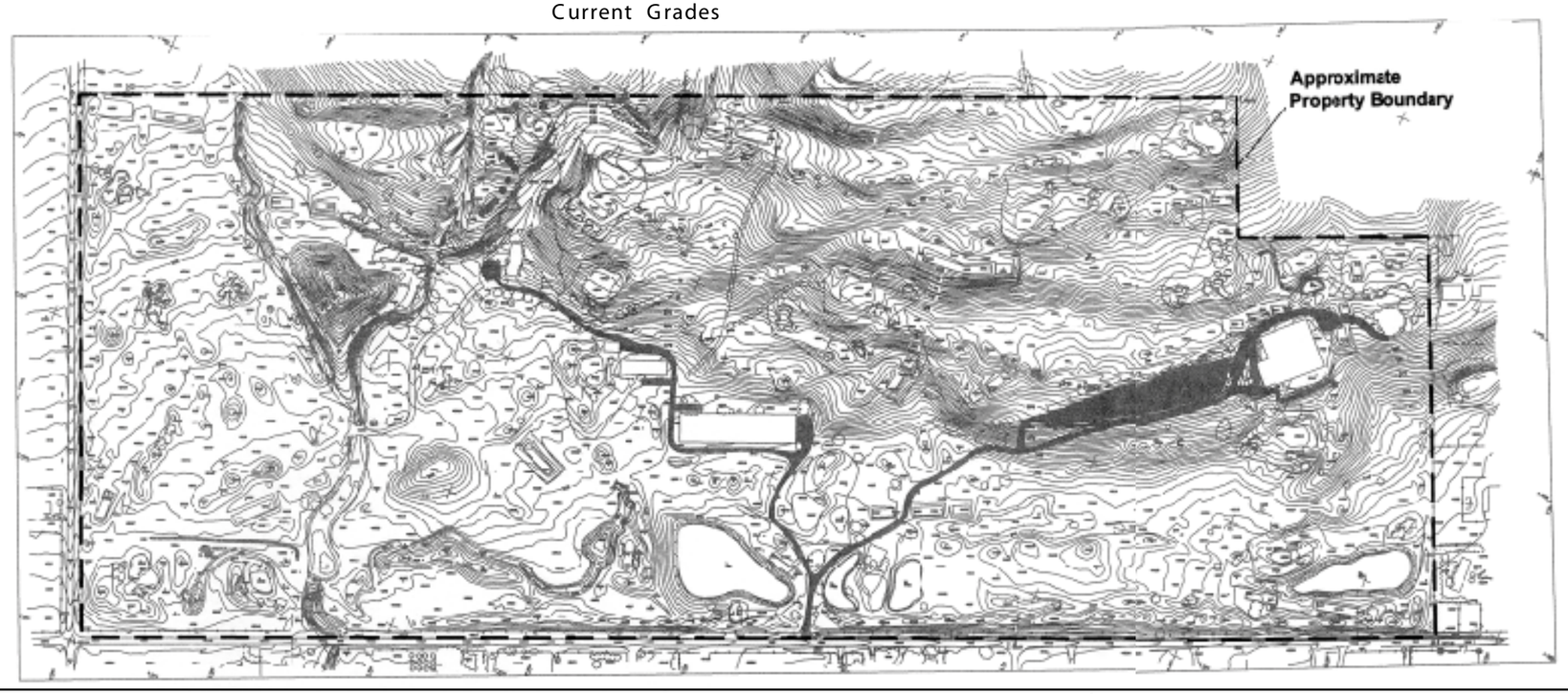
Based on the opinions of both Trustee agencies and the consulting biologists, it is likely that the grading done for the existing golf course resulted in the removal of serpentine soils and the habitats associated with those soils. This was a significant impact. The existing soils across most of the site also tend to be alkaline influenced, increasing the likelihood that non-serpentine endemic special-status species were present on the site.

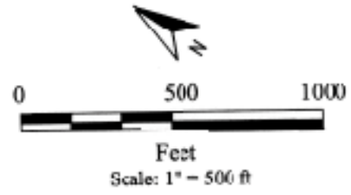
? **Approval of the proposed project will result in the permanent loss of habitat that may have contained Special-Status Plant Species. (Significant Impact)**

Pre-Existing Grades



Current Grades





PRE-EXISTING AND CURRENT GRADE

FIGURE 9

1996 USGS Digital Orthophoto Quarter Quadrangle

Scale: 1" = 500'

1999 Aerial Photograph

Scale: 1" = 500'

Source: H.T. Harvey & Associates

HISTORIC AND RECENT AERIAL PHOTOGRAPHS

FIGURE 10

Riparian Areas

Approximately 0.5 acres of riparian habitat were removed during the development of the golf course. This approximation is based on a comparison of watershed signatures in aerial photos (refer to Figure 10). The continued failure to replace the riparian habitat that was removed is a significant impact.

? **Golf course development directly adjacent to riparian and drainage areas located on the site removed riparian habitat. Approval of the project as proposed would not replace the lost riparian habitat. (Significant Impact)**

Ordinance-Size Trees

It is estimated that as many as 50 ordinance-sized trees may have been removed during golf course development, considering the greater number of trees evident in the 1996 aerial photo (Figure 10), and given the size requirements of the Morgan Hill Tree Ordinance. In the absence of more specific information, it is assumed that most of the trees removed were native oaks that are valuable to wildlife, because they provide nesting, roosting, and foraging habitat. The loss of mature native trees and/or other ordinance-sized trees as part of the golf course construction was and is a significant impact.

? **Golf course development resulted in the removal of ordinance size trees. (Significant Impact)**

California Red-legged Frog Habitat/Aquatic Habitat

Consulting biologists found numerous California red-legged frogs on the site. Because construction on the project site has already occurred, it is not possible to determine if and/or how many individual California red-legged frogs were destroyed during past maintenance, therefore, the impact to individual frogs is identified here as less than significant. It is known, however, that approximately three acres of former golf course irrigation ponds were filled between golf holes 10 and 17 to construct the current golf course. Given the extensive populations of California red-legged frogs that remain on the site, the ponds likely harbored populations and must have constituted breeding habitat. The loss of this breeding habitat is a significant impact.

? **Golf course development resulted in the loss of California red-legged frog breeding habitat. (Significant Impact)**

California Tiger Salamander Aestivation/Breeding Habitat

Because construction on the project site has already occurred, it is not possible to determine if and/or how many individual California tiger salamanders were destroyed. The impact to individual salamanders is identified as having been less than significant. It is known, however, that approximately three acres of former golf course irrigation ponds were filled between golf holes 10 and 17 to construct the current golf course. Given the observation of a California tiger salamander individual on the site, it is likely that the site previously harbored a population of California tiger salamanders and provided both breeding and upland aestivation habitat. Remnant individuals of this population were and are probably coming

from off-site aestivation habitat to use the ponds as breeding sites. The loss of these aestivation and breeding habitats were and are a significant impact.

? **Golf course development resulted in the loss of California tiger salamander aestivation/breeding habitat. (Significant Impact)**

2. Mitigation and Avoidance Measures

Conclusion: The proposed project does not include any mitigation measures for secondary impacts. In the absence of proposed mitigation, the potential remains for the project to result in the following secondary impacts: to special-status plant species habitat, riparian areas, ordinance-size trees, California red-legged frog habitat, California tiger salamander habitat, and western pond turtle habitat. **(Significant Unmitigated Impacts)**

The mitigation measures listed below would reduce secondary impacts to a less than significant level, but are not presently incorporated into the proposed project design. Should the City of Morgan Hill require these measures as conditions of project approval, and if the measures are implemented by the project proponent, the impact would be less than significant.

Mitigation Measures Not Presently Incorporated Into the Proposed Project

The following measures have been identified to reduce secondary impacts of the proposed project to a less than significant level, but at this time have not been incorporated into the proposed project design. These measures could be included as conditions of approval by the City of Morgan Hill.

Special-Status Plant Species (Serpentine) Habitat

Since most of the impacts have already occurred, establishment of a conservation easement is the only mitigation measure available that could reduce this impact to a less than significant level. As recommended by the USFWS in the letter of July 15, 2003 (Appendix C of this EIR), the following mitigation measure would reduce project impacts to serpentine habitat to a less than significant level :

- In order to replace the serpentine habitat lost with equivalent habitat, purchase 51 acres of currently unprotected serpentine habitat and fund its management as habitat in perpetuity.

Riparian Areas

Since the construction impacts within the riparian corridor have already occurred, the only mitigation available is to replace the riparian habitat removed. The following mitigation measure was identified to mitigate impacts to the riparian habitat removed:

- The riparian habitat that was lost due to grading or other development activities within areas of canopy contiguous with riparian habitat should be replaced along this same drainage at a ratio of 3:1. *

*Pre-grading conditions on the site would be determined by City Staff through the use of historic aerial photos and other historical documentation of the project site.

Ordinance-Size Trees

Since most of the impacts have already occurred, replacement is the only mitigation measure available that would reduce this impact to a less than significant level. The numerous trees planted on the golf course are primarily non-native, and do not offer replacement habitat values.

The following steps should be taken to mitigate for lost ordinance-size trees:

- Appropriate on-site locations for new trees would be identified by a qualified botanist or arborist. The proposed riparian setback area offers a potentially suitable site for the planting of native tree species. Mitigation for the removal of non-native, ordinance species could be incorporated into the landscaping plan for the proposed development or they could also be mitigated for with native plantings in the riparian setback area; and

- Lost native trees greater than six inches in diameter should be replaced at a 5:1 ratio*. This ratio would be necessary to compensate for replacement trees that do not survive, and for the habitat values lost while replaced trees are maturing. Planting stock should be collected locally. Planting should be conducted from November to January using small nursery stock. The replacement trees should be installed in an environment suitable for their establishment and growth. These trees should be irrigated and maintained for a period of not less than three years. The mitigation site should be protected from future disturbance and the restoration effort should be monitored for five years. Annual status reports should be provided to the Director of Planning.

* The size of the trees lost would be estimated by City Staff from aerial photographs and other historic documentation.

California Red-legged Frog Habitat/Aquatic Habitat

Appropriate mitigation should include either improving the potential on-site breeding habitat (Mitigation measures 1, 2, 3 and 5 below) or providing an off-site conservation easement for California red-legged frogs (Mitigation measures 2, 3, 4 and 5 below).

- Mitigation 1 - Compensation by Establishment of On-site Breeding Areas - The project could restore and expand the presumed former breeding pond and broaden the band of setbacks for the creek and the potential breeding ponds. The broadening of the setback surrounding the creek and potential breeding ponds will increase the potential for adult and juvenile red-legged

frogs to disperse and forage along a corridor between the creek and the southeastern and the westernmost ponds. Because approximately three acres of potential breeding ponds were lost, at least nine acres of breeding ponds should be restored for red-legged frog habitat. Potential breeding habitat must include emergent aquatic vegetation to provide substrates for egg laying and associated upland habitat for foraging. The upland habitat should be a buffer (an undisturbed area that protects habitat from human activities) of 200 feet that is maintained from the water's edge of individual breeding ponds and from the centerline of the creek. No human disturbance, landscaping, irrigation, turf areas or lighting should be placed within the buffer area. No vehicles or other equipment including power lawn mowers, should operate within the buffer zone. Additionally, if any nocturnal maintenance activities occur on the site, an exclusion fence must be installed and maintained to avoid "take" of red-legged frogs from vehicular activities. Additionally, Mitigation 2 and 3 should be implemented.

- Mitigation 2 - Manage Non-Native Predator Species (primarily the bullfrog) - Bullfrogs are non-native predators that reduce the long-term viability of a red-legged frog population. Although no bullfrogs or other non-native predators were detected on the project site, a non-native predator management plan that operates for the life of the golf course operation should be implemented. The main components of this plan are to: 1) monitor all ponds for bullfrogs and other non-native predators on an annual basis, and 2) draw down any ponds that contain bullfrogs for two to three weeks in late September/early October. The timing of draw down should be phased to ensure that red-legged frogs will continue to have available suitable wet areas. This draining of the ponds disrupts the two-year development cycle of the bullfrog and should substantially reduce or eliminate successful reproduction by bullfrogs in this area.

- Mitigation 3 - Maintain Water Quality of Breeding Ponds - Water quality should be monitored for the duration of the golf course operation by qualified personnel to ensure that golf course run-off does not impact breeding habitat for the red-legged frog. The water quality parameters to be sampled shall be in accordance with monitoring requirements established by the Regional Water Quality Control Board and, at a minimum, shall include nitrate, ammonia, total kjehdahl nitrogen, total dissolved solids, oil and grease (parking lot runoff only), and all landscaping chemicals used by the golf course. Emergent vegetation (e.g. cattails) established around pond edges will provide at least some biological filtering of run-off water and reduce the inflow of this run-off. All parking lot drains and all subdrains beneath tees and greens that discharge into the ponds shall include filtration or other treatment measures to minimize the potential for direct discharge of golf course chemicals or other surface runoff contaminants.

- Mitigation 4 - Provide a Conservation Easement - The project proponent could establish a conservation easement for red-legged frogs at a "to-be-determined" location. The final configuration of the easement (at least 51.2 acres of suitable red-legged frog habitat) will depend on the final mitigation design, which will be developed in conjunction with the USFWS.

This easement will be in perpetuity. A conservation easement may be purchased as a part of a larger mitigation bank.

- Mitigation 5 - Compliance with Resource Agencies - In addition to obtaining authorization from the USACE, RWQCB, and CDFG, the project proponent will need to formally consult with the USFWS to obtain a biological opinion that the continued operation of the golf course will not jeopardize the continued existence of the species and then be issued an incidental take permit. This formal consultation can take the form of a Section 7 (via a Federal action) or a Section 10 (Habitat Conservation Plan). Discussions with the USFWS will determine the appropriate vehicle to process this request.

California Tiger Salamander Aestivation/Breeding Habitat

Appropriate mitigation would include either improving the potential on-site aestivation habitat and the breeding habitat on the westernmost ponds (Mitigation 1, 2, and 3) in order to expand the existing tiger salamander population or providing an off-site conservation easement for California tiger salamanders (Mitigation 4).

- Mitigation 1 - Compensation by Establishment of On-site Breeding and Aestivation Habitat - The project could restore and expand the presumed former breeding ponds and broaden the band of setbacks for the potential breeding ponds. The broadening of the setback surrounding the potential breeding ponds will increase the potential for adult and juvenile tiger salamanders to disperse and forage around the breeding ponds. Because approximately three acres of potential breeding ponds were lost, at least three acres of breeding ponds should be restored for tiger salamander breeding habitat. Potential upland aestivation habitat must be provided around the breeding ponds. The upland habitat should be a buffer (an undisturbed area that protects habitat from human activities) of 200 feet that is maintained from the water's edge of individual breeding ponds. Additionally, large woody debris and/or stones should be placed within this buffer to encourage burrow construction by ground squirrels and/or gophers. No rodenticides should be used to kill any ground squirrels and/or gophers in the buffer area. No human disturbance, landscaping, irrigation, turf areas or lighting should be placed within the buffer area. No vehicles or other equipment including lawn mowers, should operate within the buffer zone. If any nocturnal maintenance activities occur on the site, an exclusion fence must be installed and maintained to avoid "take" of tiger salamanders from vehicular activities. Additionally, Mitigation 2 and 3 should be implemented.

- Mitigation 2 - Manage Non-Native Predator Species (primarily the bullfrog) - Bullfrogs are non-native predators that reduce the long-term viability of a California tiger salamander population. Although no bullfrogs or other non-native predators were detected on the project site, a non-native predator management plan that operates for the life of the golf course operation should be implemented. The main components of this plan are to: 1) monitor all ponds for bullfrogs and other non-native predators on an

annual basis, and 2) draw down any ponds that contain bullfrogs for two to three weeks in late September/early October. The timing of drawn down will be phased to ensure that tiger salamanders will continue to have available suitable wet areas. This draining of the ponds disrupts the two-year development cycle of the bullfrog and should substantially reduce or eliminate successful reproduction by bullfrogs on the site.

- Mitigation 3 - Maintain Water Quality of Breeding Ponds - Water quality should be monitored for the duration of the golf course operation by qualified personnel to ensure that golf course run-off does not impact breeding habitat for the red-legged frog. The water quality parameters to be sampled shall be in accordance with monitoring requirements established by the Regional Water Quality Control Board and, at a minimum, shall include nitrate, ammonia, total kjehdahl nitrogen, total dissolved solids, oil and grease (parking lot runoff only), and all landscaping chemicals used by the golf course. Emergent vegetation (e.g. cattails) established around pond edges will provide at least some biological filtering of run-off water and reduce the inflow of this run-off. All parking lot drains and all subdrains beneath tees and greens that discharge into the ponds shall include filtration or other treatment measures to minimize the potential for direct discharge of golf course chemicals or other surface runoff contaminants.

- Mitigation 4 - Conservation Easement for California Tiger Salamanders - The project proponent could establish a conservation easement for tiger salamanders at a "to-be-determined" location. The final configuration of the easement (at least three acres of ponds) and associated upland aestivation habitat will depend on the final mitigation design, which will be developed in conjunction with the CDFG. This easement will be in perpetuity. A conservation easement may be purchased as a part of a larger mitigation bank. Otherwise, the owner(s) may work with a land trust, preferably in the Mt. Hamilton Range Mountains to the east, or the owner(s) could develop their own off-site mitigation easement. Any and all easements must have a legal commitment, be guaranteed management for the purposes of maintaining a California tiger salamander population, and be approved by the CDFG.

IV. CUMULATIVE IMPACTS

The CEQA Guidelines section 15130 states that an EIR should discuss cumulative impacts "when they are significant". The discussion does not need to be in as great detail as is necessary for project impacts, but is to be "guided by the standards of practicality and reasonableness". The purpose of the cumulative analysis is to allow decision makers to better understand the potential impacts which might result from approval of past, present and reasonably foreseeable future projects, in conjunction with the proposed project.

The following discussion of cumulative impacts is based upon: (1) a list of approved and pending projects in the Morgan Hill area along the east side of Highway 101. Table 5 contains a list of these cumulative residential and industrial/commercial projects; (2) a biological opinion prepared by the United States Fish and Wildlife Service, dated July 31, 2001, which addresses cumulative biological impacts from development projects elsewhere in Santa Clara County; (3) other golf courses in the vicinity; and (4) other activities likely to occur on the project site, such as future golf tournaments.

The Planned Development Rezoning application that was submitted to the City also identifies "Charity Golf Tournaments" as a proposed use. The City will not approve zoning for the project site that includes golf tournaments as a proposed use. No information has been provided by the project proponent on any aspect of the golf tournaments, including their frequency or how many people might attend them. Golf tournaments on this site could increase adverse impacts to on-site and nearby sensitive species.

1. Cumulative Impacts

Cumulative Water Supply Impacts

Most planned and new development projected to occur in the project area will occur on agricultural land and undeveloped land, such as the proposed project. In general, agricultural land uses require more water than urban land uses. Therefore, the anticipated conversion of agricultural land uses to urban land uses is not likely to result in a substantial increased demand on the existing groundwater supply. The proposed project will not contribute to a significant cumulative groundwater supply impact.

Cumulative Loss of Agricultural Land

The project site has not been used for the production of irrigated crops since construction of the golf course started (1997). The project site is designated as *Urban and Built-up Land* on the current Santa Clara County Important Farmland Map (2000), compiled by the California Department of Conservation. At the time of the Notice of Preparation for this EIR was circulated (June 2000) approximately 57 acres of the project site was designated as *Prime Farmland*.

According to the most recent available data from the California Department of Conservation, Santa Clara County has 30,050 acres designated as Prime Farmland. During the most recent mapping cycle (1998-2000), a net total of 1,958 acres of Prime Farmland were converted to alternate uses. Of that amount, 1,747 acres were converted to Urban and Built-Up Land.

As stated above and shown in Table 5 on the following page, much of the development projected to occur in the project area will occur on agricultural land and undeveloped land. Approximately 57 acres of this property have been classified as Prime Farmland in the past and could be cultivated in

the golf course was not approved. As stated in **Section VII., Growth Inducing Impacts of the Proposed Action** in this EIR, the proposed project might increase the incentive for residential development in the project area, which will in turn result in the loss of some additional agricultural land. The proposed project would contribute to a significant cumulative loss of agricultural land in the project area and Santa Clara County.

Cumulative Special-Status Plant Species (Serpentine) Habitat Impacts

As stated above, much of the development projected to occur in the project area will occur on undeveloped land. Undeveloped land in the Morgan Hill area frequently supports special-status plant species (serpentine) habitat, similar to the proposed project site. The construction of the golf course, and its continued operation as proposed, would contribute to a significant cumulative loss of special-status plant species (serpentine) habitat.

Table 5
Pending Development

Project Name	Type of Development	Status	Existing Land Use	Approximate Acreage
Coyote Lake-Harvey Bear Ranch Golf Course	Golf Course	In Process	Undeveloped	175 Acres
Morgan Meadows	Residential	Partially Complete	Remnant Orchard	10 Acres
Pritam Gerwal	Residential	Approved	Undeveloped	1 Acre
East Dunne-Trovare	Residential	Under Construction	Orchard	20 Acres
Condit-Patel	Commercial	Approved	Undeveloped	1.5 Acres
Condit-City of Morgan Hill Soccer Complex	Park	In Process	Actively Farmed	35 Acres
Condit Road Harley Davidson Dealership	Commercial	Under Construction	Orchard	3.5 Acres
Condit Ford Store	Commercial	Approved	Undeveloped	6 Acres
Condit-City of Morgan Hill Aquatics Center	Public Facility	Under Construction	Undeveloped	9 Acres
E. Dunne-Ho	Commercial	Approved	Undeveloped	2.5 Acres
Shafer-Bamdad	Residential	Approved	Undeveloped	8.5 Acres

Cumulative Special-Status Animal Species Habitat Impacts

As stated above, most development projected to occur in the project area will occur on agricultural and undeveloped land. Agricultural and undeveloped land in the Morgan Hill area frequently supports the same special-status species habitat, as found on the project site (e.g., red-legged frog, tiger salamander, western pond turtle, burrowing owl, and other raptors). In addition, within Santa

Clara County, listed species and their habitat have been and continue to be impacted, as demonstrated by the fact that they are considered "Species of Special-Status" in the Santa Clara County. The construction of the golf course, and its continued operation as proposed, would contribute to a significant cumulative loss of special-status animal species habitat.

Cumulative Surface Water Quality Impacts

As stated above, most development projected to occur in the project area will occur on agricultural and undeveloped land. The continued operation of the golf course, as it is constructed, would result in increased degradation of surface water quality resulting from the incrementally increased amount of impervious urban surfaces and urban activities such as traffic, grading, use of landscaping maintenance chemicals, litter, etc. Urban runoff contains numerous non-point source pollutants, such as sediments, oil, grease, fertilizers, and pesticides. The proposed project will contribute to the significant cumulative degradation of surface water quality.

Cumulative Ground Water Quality Impacts

As stated previously, most development projected to occur in the project area will occur on agricultural and undeveloped land. The elevated levels of nitrogen in the groundwater below the project site are largely the result of agricultural uses in the project area, and the use of fertilizers (nitrogen) associated with them. Therefore, the anticipated conversion of agricultural land uses to urban land uses is not expected to result in increasing levels of nitrogen in the groundwater. Another proposed golf course in the project area (e.g., Harvey Bear Ranch Golf Course) would be as likely as the proposed project to use substantial quantities of fertilizers, because of the net reduction of agricultural land in the area, however, the proposed project will not contribute to a significant cumulative groundwater quality impact.

Cumulative Increase in Surface Water Runoff Impacts

As stated above, most development projected to occur in the project area will occur on agricultural and undeveloped land. The increased amount of impervious urban surfaces resulting from this development will result in a significant increase in the quantity of surface water runoff entering the waterways in the area, including Llagas Creek. This increase in runoff will exacerbate downstream flood conditions along the waterways which may result in the need for channelization of the waterways and consequent destruction of their riparian vegetation and natural habitat. The proposed project will contribute to impacts resulting from significant cumulative increases in surface water runoff, including flooding.

2. Mitigation for Cumulative Impacts

Mitigation for Cumulative Loss of Agricultural Land

There is no mechanism in place to achieve mitigation for the identified cumulative loss of agricultural land.

Conclusion: Since there is no mechanism in place to achieve mitigation for the identified loss of agricultural land/open space, this would be a significant unavoidable cumulative impact. **(Significant Unavoidable Cumulative Impact)**

Mitigation for Cumulative Loss of Special-Status Plant Species (Serpentine) Habitat

The mitigation measures described in **Section III., Secondary Impacts** for impacts to special-status plant species (serpentine) habitat would reduce cumulative impacts to serpentine habitat to a less than significant level, but they are not proposed by the project at this time. These measures could be required as conditions of project approval by the City of Morgan Hill.

Conclusion: The existing golf course, as currently proposed, will result in impacts to special-status plant species (serpentine) habitat; therefore, the proposed project will result in cumulatively considerable impacts to special-status plant species (serpentine) habitat. **(Significant Cumulative Impact)**

Mitigation for Cumulative Loss of Special-Status Animal Species

The project proponent's proposed mitigation measures for the California red-legged frog, California tiger salamander, and western pond turtle are described in the March 3, 2003 letter to the City of Morgan Hill. The letter is included in Appendix C of this EIR. As proposed, the project proponent's mitigation measures are inadequate to reduce project specific or the project's contribution to cumulative impacts to red-legged frogs to a less than significant level. Two mitigation measure packages, either of which would reduce the impacts to red-legged frogs to a less than significant level, are described in **Section II., C., Vegetation and Wildlife**. Neither of the mitigation packages are proposed by the project at this time, but they could be required as conditions of project approval by the City of Morgan Hill.

Conformance to the City of Morgan Hill's *Citywide Burrowing Owl Mitigation Plan* would reduce the project's cumulative impact to Burrowing Owl.

Conclusion: The existing golf course, as currently constructed, will result in impacts to special-status animal species and their habitat; therefore, the proposed project will result in cumulatively considerable impacts to special-status species habitat. **(Significant Cumulative Impact)**

Mitigation for Cumulative Surface Water Quality Impacts

The mitigation measures identified in the EIR for water quality impacts, **Section II., D., Hydrology and Water Quality**, would also reduce the project's contribution to cumulative surface water quality impacts to a less than significant level. They are not proposed by the project at this time, but they could be required as conditions of project approval by the City of Morgan Hill.

Conclusion: The existing golf course, as currently constructed, will result in surface water quality impacts; therefore, the proposed project will result in cumulatively considerable surface water quality impacts. **(Significant Cumulative Impact)**

Mitigation for Cumulative Increase in Surface Water Runoff Impacts

The mitigation measures identified in the EIR for flooding impacts, **Section II., D., Hydrology and Water Quality**, would reduce the project's contribution to the cumulative increase in surface water runoff impacts to a less than significant level. They are not proposed by the project at this time, but they can be included as conditions of approval by the City of Morgan Hill.

Conclusion: The existing golf course, as currently constructed, will result in flooding impacts; therefore, the proposed project will result in a cumulatively considerable increase in surface water runoff impact. **(Significant Cumulative Impact)**

V. ALTERNATIVES

CEQA requires that an EIR identify alternatives to a project as proposed. The CEQA Guidelines specify that the EIR identify alternatives which "would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen many of the significant effects of the project". The purpose of this section is to determine whether there are alternatives of design, scope or location which would substantially lessen the significant impacts, even if those alternatives "impede to some extent the attainment of the project objectives" or are more expensive.

The significant unmitigated impacts identified from the proposed project include impacts in the areas of soils and geology, vegetation and wildlife, hydrology and water quality, water supply, noise, and hazardous materials.

In most cases, mitigation has been identified which is not included in the proposed project but could be required by the City as conditions of project approval. Brief descriptions of the impacts that would result from the project, as it is presently proposed, are listed below.

Geology and Soils

Significant geology and soils impacts include the potential for substantial erosion and siltation due to potentially unstable earthwork on the project site

Vegetation and Wildlife

Significant vegetation and wildlife impacts include the following: destruction of individual California red-legged frogs and loss of red-legged frog habitat; the destruction of individual California tiger salamanders and loss of their habitat; the destruction of individual western pond turtles and loss of their habitat; impacts to downstream special-status animal species, including the central coast steelhead; development adjacent to riparian habitat and the loss of riparian habitat; and the loss of ordinance size trees.

Hydrology and Water Quality

Significant hydrology and water quality impacts include the following: an increased potential for flood related property loss or hazard to human life due to a substantial increase in peak storm water runoff and insufficient storm drainage capacity; a substantial degradation of groundwater resources with nitrogen resulting from over-fertilizing the golf course; and a substantial degradation of surface water quality due to the contamination of surface waters with pesticides, fertilizers, and construction related pollutants.

Water Supply

Significant water supply impacts include the following: the depletion of groundwater resources which may limit the availability of water at adjacent land uses due to substantial water quantity needed for irrigation of the existing golf course; an unacceptable source of potable water which may result in a health hazard to workers and visitors at the project site; and a potentially insufficient fire water supply which may result in property loss or a hazard to human life.

Noise

During the construction phase, the proposed project may result in significant short-term noise impacts upon adjacent land uses.

Hazardous Materials

Significant hazardous material impacts include the potential for asbestos containing materials and lead-based paint to be present in the existing on-site buildings which may impact workers and persons in the project area when the buildings are renovated or demolished.

Alternatives required by CEQA to be considered are those that are capable of reducing some or all of the significant impacts identified. Consideration of a "No Project" alternative is mandatory. In addition, an alternative which includes measures to reduce most of the significant impacts identified for the proposed project was also developed, based on the "mitigation not currently incorporated in the proposed project" that is described throughout this EIR. The analysis of an alternative location was not completed because the project has already been built on the project site. Each of these alternatives is discussed below.

A. NO PROJECT ALTERNATIVE

In April 1997, the City of Morgan Hill issued a grading permit to the project proponent for the reconstruction of the existing nine-hole golf course and the construction of a new access road and irrigation pond. The approved grading plan included the movement of up to 105,000 cubic yards of material on approximately 40 acres of land located on the southwest corner of the site. The No Project alternative includes the development allowed by the grading permit issued in 1997 and the conversion of the remainder of the project site developed with the existing golf course (approximately 150 acres) to pre-grading conditions. Pre-grading conditions on the site would need to be determined through the use of historic aerial photos and other historical documentation of the project site.

The No Project alternative could avoid all of the identified significant impacts anticipated to occur as a result of allowing the proposed project to remain and continue to operate, but can not mitigate all that have already occurred as a result of the proposed project. Under the No Project alternative the following events would occur:

- The existing restaurant would remain vacant. Nesting swallows and roosting bats would be left undisturbed.
- Biological resources (i.e., habitat for or used by California red-legged frog, California tiger salamander, Burrowing Owls, and riparian habitats) would be restored.
- Pesticides, fertilizers and water would no longer be needed to maintain 150 acres of manicured grass.
- The site would need to be regraded, and drainage would be directed back into Corralitos Creek.
- Other impacts such as the necessity for additional fire water supply and the exposure to hazardous materials would be avoided.

Restoring the land to pre-grading conditions, however, would require a substantial amount of grading, which may itself result in significant impacts. Measures would need to be taken to avoid impacts to nesting raptors, burrowing owls, California red-legged frogs, and riparian habitat. Measures would also need to be taken to avoid significant soil erosion, construction noise, and air quality impacts. While it is unlikely that these impacts would be worse than the impacts that occurred when the un-permitted construction was done, they would be new, additional impacts.

As discussed in **Section II., C., Vegetation and Wildlife** of this EIR, measures needed to avoid additional biological impacts, including preconstruction surveys for burrowing owls and nesting raptors, and setbacks from riparian areas to avoid impacts to California red-legged frogs and the riparian corridor would be required. As discussed in **Section II., D., Hydrology and Water Quality** of this EIR, actions to avoid the impacts of soil erosion and future construction activities on the site, such as regrading the site, would require conformance with the provisions of the National Pollution Discharge Elimination System (NPDES) permit, which includes the preparation of a Storm Water Pollution Prevention Plan (SWPPP). Construction noise impacts could be mitigated by limiting construction to the hours of 7:00 AM to 8:00 PM during the weekdays and 9:00 AM to 6:00 PM on weekends, as stated in the City of Morgan Hill Municipal Codes. In order to avoid air quality impacts associated with construction activities, conformance with the Bay Area Air Quality Management District (BAAQMD) Guidelines would be required.

Conclusion: The No Project alternative could avoid all of the identified significant impacts anticipated to occur as a result of allowing the proposed project to remain and continue to operate. The No Project alternative would be consistent with the City's objectives for the use of the project site, since the pre-grading conditions are consistent with City plans and policies. The No Project alternative will not meet the project proponent's objectives for the proposed project.

B. REDUCED IMPACT ON-SITE ALTERNATIVE

The Reduced Impact On-site Alternative would be designed to avoid or reduce identified impacts to a less than significant level with the use of on-site mitigation measures. Nearly all significant impacts would be reduced to a less than significant level except for the loss of serpentine habitat and the cumulative loss of agricultural land. It should be noted that the elements included in this alternative include some of the "Mitigation Measures Not Currently Incorporated Into the Proposed Project", discussed elsewhere in this EIR. This alternative includes all of the mitigation that can be implemented on-site (without off-site elements). Many of these elements could be incorporated into the project as conditions of approval, part of the permitting process. A description of each of the specific elements of the Reduced Impact On-Site Alternative as it corresponds to each area of impact is provided below.

- A geotechnical report by a certified engineering geologist or civil engineer would need to be prepared to verify the soil structural stability of the existing earthwork on the entire site. If the existing earthwork is not found to be capable of resisting erosion and/or collapse, the grades would be reworked in conformance with an engineered plan approved by the City's Director of Public Works, prior to implementation.

- The Reduced Impact On-Site Alternative will incorporate the following elements to reduce Vegetation and Wildlife impacts:

- This EIR describes various minimum setbacks from creeks and ponds necessary to achieve different goals, including avoiding or mitigating impacts to riparian habitat, water quality, and special-status species (i.e., California red-legged frogs, California tiger salamanders, western pond turtles, and steelhead). The minimum setbacks necessary to mitigate and avoid impacts to red-legged frogs are the greatest (i.e., at least 200 from all creeks and ponds on the site) when no off-site replacement habitat mitigation is provided. Providing 200-foot setbacks from all on-site water bodies would also provide the necessary setbacks for California tiger salamander (200 feet), western pond turtle (200 feet), riparian habitat (25-100 feet) and water quality (50 feet). This mitigation will require that all turf grass, non-native vegetation, and improvements are set back a minimum of 200 feet from the top-of-bank of all branches of Corralitos Creek and all ponds on the project site.

- Riparian habitat lost due to previous grading or other development activities will be replaced on-site at a ratio of 3:1;

- Nine acres of breeding ponds will be created or restored on-site for California red-legged frog habitat. Management of the habitat will include a 200-foot buffer zone, water quality monitoring, consultation with the USFWS, and a non-native predator management plan. This would also reduce the impacts to California tiger salamander, and western pond turtle;

- Surveys for Burrowing Owls will be conducted prior to any maintenance or construction activities by a qualified ornithologist and the project will comply with the requirements of the City of Morgan Hill's *Citywide Burrowing Owl Mitigation Plan*;

- If any future demolition and construction can not be scheduled to avoid the nesting season of raptors (January through August), then preconstruction surveys for nesting raptors will be conducted by a qualified ornithologist;

- If it is not possible to schedule the demolition, construction, or renovation of any building to avoid the swallow nesting season (September through mid-February), then the nests will be removed before February 15th and preconstruction surveys for nesting swallows will be conducted within 48 hours prior of any demolition, construction, or renovation by a qualified ornithologist;

- A predemolition/preconstruction survey for roosting pallid and Townsend bats will be conducted between three and 15 days prior to any demolition or renovation of buildings by a qualified bat biologist;

- Native trees lost during the development of the project site that were greater than six inches in diameter will be replaced at a 5:1 ratio; and

- The preparation of and conformance to a Storm Water Pollution Prevention Plan (SWPPP) will avoid future impacts to special-status species located downstream of the project site.

? The Reduced Impact On-site alternative will incorporate the following elements to reduce Hydrology and Water Quality impacts:

- The drainage system for the golf course will be redesigned to reduce the peak runoff flows from the site to levels that are equal to or less than pre-development conditions;

- An approved Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) will be prepared prior to commencement of any future construction or corrective grading. In addition, the project proponent shall prepare an Erosion Control Plan for review and approval by the City of Morgan Hill and the Central Coast Regional Water Quality Control Board (RWQCB);

- As stated previously, the golf course design will be modified along all creeks and ponds to provide a minimum buffer distance of 200 feet of native grasses and non-maintained rough to protect special-status species, which will also assist in the capture and treatment of surface runoff pollutants;

- A nitrogen control plan will be prepared and submitted to the Santa Clara Valley Water District (SCVWD) and the Central Coast RWQCB for review and approval, and will be implemented immediately upon approval;

- A Chemical Application Management Plan (CHAMP) will be prepared for the project site that will be subject to review and approval by the City of Morgan Hill and the Central Coast RWQCB, and will be implemented immediately upon approval. The CHAMP will commit the golf course owners/operators to provide on-going monitoring of water quality within the stream channels (Corralitos Creek) that flows through the project and within the on-site ponds that have outfalls to the local drainage channel along Foothill Avenue; and

- Arrangements will be made for the RWQCB staff to conduct a site inspection for review of the construction areas and practices followed during the construction of the existing golf course. Sampling and analysis of on-site soils for evidence of toxic materials that may have been accumulated as a result of the existing golf course construction will be conducted and reported to the RWQCB. Any clean-up or mitigation subsequently required by the RWQCB will be implemented immediately.

? The Reduced Impact On-site alternative will incorporate the following elements to reduce Water Supply impacts:

- Domestic water will be provided for the project in accordance with Title 22 Drinking Water Standards;

- Fire protection water supply requirements, as determined by the Fire Chief, will be met; and

- Provide confirmation to the satisfaction of the City of Morgan Hill and the SCVWD, that the pumping of groundwater for golf course irrigation will not cause a significant decline in the water table at neighboring properties with the preparation of a detailed groundwater investigation, or by immediately reducing the amount of irrigated turf on the golf course to a maximum of 50 acres.

? The Reduced Impact On-site alternative will incorporate the following elements to reduce Hazardous Material impacts:

- Prior to any demolition, construction, or renovation activities associated with any of the existing buildings on the site, the interiors will be inspected for lead based paint and asbestos containing materials (ACMs). If any of these contaminants are found, they will be removed in accordance with OSHA and the Department of Toxic Substances (DTSC) standards.

? The Reduced Impact On-site alternative will incorporate the following elements to reduce construction related noise and air quality impacts to a less than significant level:

Noise

- According to the City of Morgan Hill Noise Ordinance, noise-generating construction activities are defined as including, but are not limited to, excavation, grading, paving, demolition, construction, alteration or repair of any building site, street, or highway, delivery or removal of construction material to a site or movement of construction materials on a site. These construction activities are prohibited other than between the hours of 7:00 AM to 8:00 PM, Monday through Friday, and between the hours of 9:00 AM and 6:00 PM on Saturday. Construction activities may not occur on Sundays or federal holidays.

- Construction operations could use available noise suppression devices and techniques, and equipment will be properly muffled and maintained.

Air Quality

- Dust-proof chutes would be used for loading construction debris onto trucks.

- Watering would be used to control dust generation during demolition of structures and break-up of pavement.

- Cover all trucks hauling demolition debris from the site.

- Water all active construction areas at least twice daily.

- Watering or covering of stockpiles of debris, soil, sand or other materials that can be blown by the wind.

- Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.

- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking, and staging areas at construction sites.

- Sweep daily (preferably with water sweepers) all paved access road, parking areas and staging areas at construction sites.

- Sweep streets daily (preferably with water sweepers) if visible soil material is carried onto adjacent public streets.

- Hydroseed or apply non-toxic soil stabilizers to inactive construction areas.

- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

- Replant vegetation in disturbed areas as quickly as possible.

? The Reduced Impact On-site alternative will incorporate the following elements to reduce project related odor impacts to a less than significant level:

- Existing and future grass clippings could be collected and either: (1) composted on-site at a location and in a manner to be specifically addressed in the Planned Development Rezoning Permit; or (2) hauled to an off-site recycling facility; or (3) left on the golf course to compost "in situ".

Conclusion: The Reduced Impact alternative would avoid all the significant impacts associated with the proposed project, except for the cumulative loss of agricultural land. The Reduced Impact alternative is a feasible alternative that is environmentally superior to the proposed project while also meeting most of the objectives of the proposed project.

VI. SIGNIFICANT UNAVOIDABLE IMPACTS OF THE PROJECT

As defined in the CEQA Guidelines, a significant impact on the environment is "....a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the activity...." Potentially significant environmental impacts of the project are listed below. Final determination of the significant impacts is made by the decision making body of the Lead Agency having final approval authority over the project. These impacts include both those identified in this EIR as primary impacts (resulting from the ongoing operation of the golf course) and secondary impacts (which result from the project if actions are not taken to restore conditions to what was present on the site before the golf course was built).

If all of the mitigation measures identified throughout this EIR were to be required of the project and implemented by the project proponent, the only significant unavoidable environmental impact would be the project's contribution to a cumulative significant unavoidable loss of agricultural land in the project area.

Significant Unmitigated Impacts

If this project is approved, as currently proposed, it will result in the following significant unmitigated impacts:

Soils and Geology

- Erosion, and siltation.

Vegetation and Wildlife

- The "take" of California Red-legged Frogs and loss of breeding habitat.
- The "take" of California tiger salamanders and loss of breeding habitat.
- The "take" of western pond turtle and loss of breeding habitat.
- Degradation of water quality downstream of the project site, which provides habitat for several special-status species.
- Degradation and loss of riparian habitat.
- Loss of ordinance size trees.
- Contribute to a cumulative loss of special-status plant species habitat.
- Contribute to a cumulative loss of special-status animal species habitat.

Hydrology and Water Quality

- Degradation of water quality due to the discharge of sediments and pollutants to Corralitos Creek and an increased potential for flood related property loss or hazard to human life.
- Worse and more frequent flooding problems on Foothill Avenue and on nearby properties.
- Future grading may increase soil erosion on the site.
- Net increase of non-point source pollutants entering surface waters.
- Increased nitrogen levels in the groundwater.
- Higher nitrogen loading to downstream surface waters, including Corralitos Creek, San Martin Creek and Llagas Creek.
- Contamination of on-site drainages and the downstream reaches of Corralitos Creek, San Martin Creek and Llagas Creek with pesticides.

- ? Contamination of the groundwater below the site with pesticides.
- ? Contribute to the cumulative degradation of surface water quality.
- ? Contribute to the cumulative increase in surface water runoff.

Water Supply

- ? Depletion of groundwater resources.
- ? An unacceptable source of potable water which may result in a health hazard to workers and visitors at the project site.
- ? A potentially insufficient fire water supply which may result in property loss or a hazard to human life.

Hazardous Materials

- ? The existing structures on the project site may contain ACMs or lead based paint. Any construction activity associated with the on-site structures may expose workers or nearby persons these hazardous materials.

Noise

- ? A temporary increase in ambient noise levels.

All other impacts of the project would be reduced to a less than significant level with the proposed mitigation measures, as described in the EIR.

When an Environmental Impact Report identifies significant impacts, Section 15091 of the CEQA Guidelines requires that one or more of the following written findings be made when a public agency approves the project: 1) changes or alterations have been required to avoid or substantially lessen the impact, 2) changes or alterations are within the responsibility of another agency, or 3) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible. CEQA requires decision makers to balance the benefits of a project against its unavoidable environmental risks in determining whether to approve the project. When the decision of the public agency allows the occurrence of significant impacts that are not at least substantially mitigated, a "statement of overriding considerations" must be prepared in accordance with Section 15093 of the guidelines.

VII. GROWTH-INDUCING IMPACTS OF THE PROPOSED ACTION

CEQA Guidelines Section 15126(g) directs the discussion of growth-inducing impacts to the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Projects which could remove an obstacle to population growth (such as a major public service expansion) must also be considered in this discussion. According to CEQA, the Lead Agency must never assume that growth in an area is necessarily beneficial or of little significance environmentally.

As the cost of land continues to increase and the amount of undeveloped land decreases, development pressures on rural areas such as those areas surrounding the project site increases. When non-agricultural projects are approved in rural areas, it tends to encourage change on the surrounding parcels. While the proposed golf course will add incentives for residential development in the area, the agricultural viability of much of the area surrounding the project site has already been limited due to small parcel sizes (one to five acres) and the mixture of estate residential and rural residential uses surrounding the project site.

Golf courses and residential development are highly desirable and compatible neighbors, as demonstrated by numerous successful developments in Santa Clara and San Benito Counties including the Villages, the Silver Creek Valley Country Club, and the Ridgemark Country Club.

The proposed golf course will increase the desirability of residential development in the surrounding area, adding an incentive to residential developers. If the project is approved, it will increase the value of surrounding properties. Higher land values could encourage other land owners to abandon agriculture, and apply for General Plan amendments to subdivide their parcels to construct residential units. A General Plan amendment, however, would require separate environmental review, as would any subsequent development.

The project does not involve the extension of additional water or sewer lines or a new roadway to the project site; therefore, it will not induce growth by facilitating the creation of infrastructure.

Conclusion: To the extent that the proposed golf course increases the desirability of residential development, the project may contribute to the on-going development pressure on farmland and open space in Santa Clara County. The direct cause and effect relationship between the proposed project and any future growth, however, is difficult to ascribe. As stated previously, the proposed project would not provide any infrastructure improvements that would directly facilitate growth. For this reason, the development of the proposed project will not have a significant growth inducing impact.

VIII. EIR AUTHOR AND CONSULTANTS

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IX. SOURCES AND REFERENCES

Archaeological Resource Management, Cultural Resource Evaluation for the Institute Project in the City of Morgan Hill, June 1996.

Bay Area Air Quality Management District, 2000 Clean Air Plan, 2000.

California Department of Conservation, Division of Land Resources Protection, Santa Clara County Important Farmland Map, 2000.

California Department of Conservation, Division of Mines and Geology, Geologic Map of the San Francisco - San Jose Quadrangle, 1990.

City of Morgan Hill, General Plan, 2001.

City of Morgan Hill, Land Use Map, 1995.

City of Morgan Hill, Planning Boundaries Map, 1995.

City of Morgan Hill, Planning and Zoning Code, 1995.

City of Morgan Hill, Zoning Map, 1995.

Cooper-Clark & Associates, Geotechnical Investigation of San Jose's Sphere of Influence, 1974.

Department of Fish and Game, Draft Environmental Impact Report Institute Golf Course, Letter Dated March 10, 2003.

H.T. Harvey & Associates, Institute Golf Course Draft Environmental Impact Report Biological Resources Section, August 1, 2001 (revised December 9, 2003).

Kleinfelder Incorporated, Landscape Appraisal Morgan Hill Math Campus Morgan Hill, CA, January 20, 1995.

Kleinfelder Incorporated, Revised Geotechnical Investigation of Soil Berms at the Institute Golf Course in Morgan Hill, California, July 7, 2003.

Soil Conservation Service, Soils of Santa Clara County, 1968.

United States Fish and Wildlife Service, Biological Opinion on the U.S. Highway 101 Widening, Route 85/U.S. 101 South Interchange, Riparian and Wetland Consolidated Biological Mitigation Project, Bailey Avenue Extension/U.S. 101 Interchange, and Coyote Valley Research Park Projects, San José and Santa Clara County, California, July 31, 2001

Questa Engineering Corporation, Institute Golf Course Hydrology and Water Quality Report, October 2003.

Federal Emergency Management Agency, Flood Insurance Rate Maps for City of Morgan Hill, December 1998.